

REMARKS

I. PRELIMINARY REMARKS

A minor amendment has been made to the specification. No claims have been canceled or added. Claims 26 and 30 have been amended. Claims 14-17, 21-23, 25-30, 38, 39 and 45-51 remain in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Applicant notes with appreciation that the Office Action indicated that claims 16 and 48-51 have been allowed and that claims 26 and 30 are directed to patentable subject matter. As claims 26 and 30 have been rewritten in independent form, applicant respectfully submits that claims 26 and 30 are also in condition for allowance.

The Examiner's thorough explanation of the rejections is also noted with appreciation.

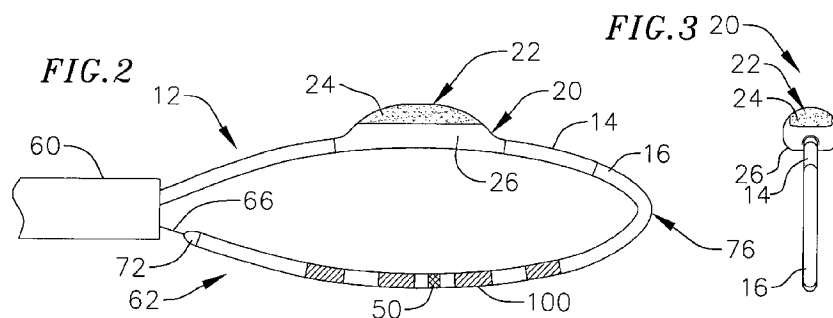
II. OBJECTION TO THE SPECIFICATION

The specification has been objected to under 37 C.F.R. § 1.75(d)(1) for failing to provide antecedent basis for the phrase "flexibility that is greater" in claims 45, 46 and 51. Applicant respectfully submits that the objection has been obviated by the amendment above to the specification without introducing new matter. In particular, a sentence has been added to the specification that merely reiterates information already presented in the associated paragraph, i.e. that "the flattened portion [can] be bent back into a loop with **less force** than would otherwise be required" and that "placement of the flattened portion 74 in the area that will form the apex 76 of the loop 62 also results in a **much sharper bend** at the apex, and a more compact loop, than would be obtained otherwise." One of skill in the art would recognize that something which can be bent with less force, and/or is bent more sharply with the same force, necessarily has a flexibility that is greater than that to which it is being compared.

Applicant also respectfully submits that the amendment to the specification should be entered for purposes of appeal. The amendment does not present new issues. Moreover, claims 45 and 46 were first presented in the amendment dated January 16, 2008 and two non-final Office Actions (May 29, 2008 and December 23, 2008) were issued without any objection to claims 45 and 46 prior to the outstanding final Office Action. [Claim 51 includes the same phrases as claims 45 and 46.]

III. BRIEF DESCRIPTION OF AN EXEMPLARY EMBODIMENT

The present inventions, as defined by the claims, are directed to probes that may be used for therapeutic purposes. Referring to Figures 2 and 3, one exemplary probe includes a catheter 12 that is carried within a sheath 60. The catheter 12, which may be bent into a loop 62 using a pull wire 66 (Figure 2) or by connecting the catheter to distal end of the sheath 60 (Figure 14), includes a hinge 74 (Figure 13). The hinge is located within the portion of the catheter 12 that forms the apex 76 of the loop 62. An inflatable electrode 20 is supported on the catheter 12.



IV. PRIOR ART REJECTION

A. The Rejection

Claims 14, 15, 17, 21-23, 25, 27-29, 38, 39 and 45-47 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of U.S. Patent No. 6,332,880 to Yang ("Yang") and U.S. Patent No. 6,076,012 to Swanson ("Swanson"). The

rejection under 35 U.S.C. § 103 is respectfully traversed. Reconsideration thereof is respectfully requested.

B. The Section 103 Rejection of Claims 14, 15, 17, 38, 39, 45 and 46

1. The Claimed Combinations

Independent claim 14 calls for a combination of elements comprising “an outer member,” “an elongate body carried within the outer member interior bore, the elongate body defining a proximal region, a distal region and a distal end operably connected to the distal end of the outer member, the elongate body including an internal fluid lumen extending from the proximal region to the distal region, and the distal region of the elongate body including **a hinge portion** located proximal of the distal end of the elongate body” and “an inflatable tissue coagulation body supported on the elongate body distal region.” The respective combinations defined by claims 15, 17, 38, 39, 45 and 46, *inter alia*, the elements recited in claim 14.

2. Claim Interpretation

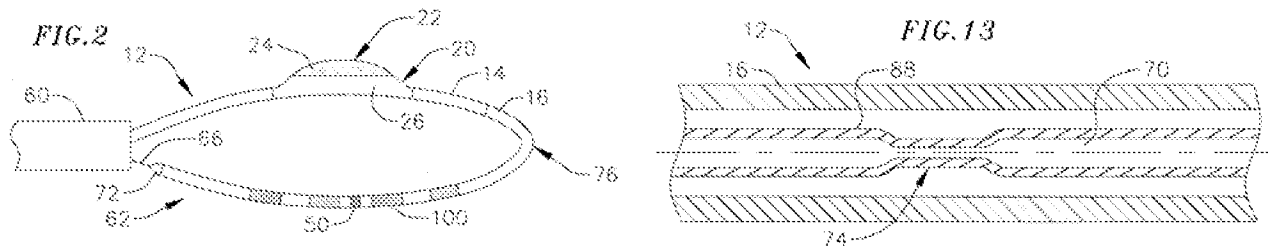
The first step in an analysis of a claim under 35 U.S.C. § 103 is to determine what, exactly, is being claimed. To that end, and as noted in MPEP § 2111:

The Federal Circuit's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the “broadest reasonable interpretation” standard: The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 70 USPQ2d 1827 (Fed. Cir. 2004).

Additionally, “words of the claim must be given their **plain meaning** unless the plain meaning is inconsistent with the specification” and “[o]rdinary, **simple English words** whose meaning is clear and unquestionable, absent any indication that their use in a

particular context changes their meaning, **are construed to mean exactly what they say.**" MPEP § 2111.01, citations omitted, emphasis added.

Independent claim 14 indicates that "the distal region of the elongate body [includes] **a hinge portion** located proximal of the distal end of the elongate body." The plain meaning of the word "hinge" is a device that allows one structure to pivot relative to another. The plain meaning is confirmed by the manner in which "hinge" is used in the present application. Referring to Figures 2 and 13, the application states that "[t]he flattened portion 74 acts as a hinge and allows the portion of the catheter body 12 distal to the flattened portion to be bent back into a loop with less force than would otherwise be required" and that "[t]he placement of the flattened portion 74 in the area that will form the apex 76 of the loop 62 also results in a much sharper bend at the apex, and a more compact loop, than would be obtained otherwise." [Spec. at page 16, line 12-20.] Accordingly, the claimed "hinge portion" is a portion of the elongate body that allows one region of the elongate body to pivot relative to an adjacent region.



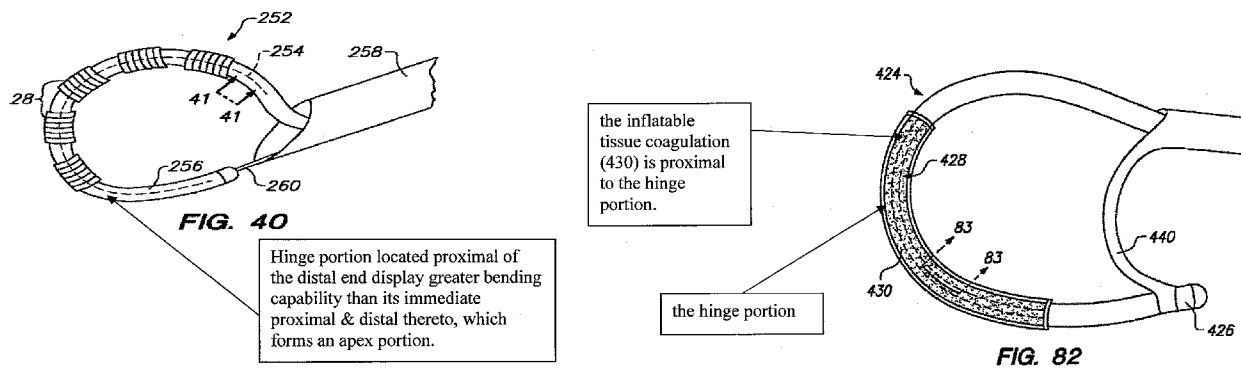
3. The Cited References

Referring to Figure 40, which is reproduced on the following page, Yang discloses an electrode support structure, defined by a spline leg 254 and a sleeve 256, that supports a plurality of electrodes 28. The electrode support structure is bent into a loop 252 when pushed outwardly from a sheath 258.

Swanson discloses an electrode body 428 in Figure 82, including the electrodes 429 and porous material 430 illustrated Figures 83 and 84. The electrode body 428 is also disclosed in Yang (see Figure 82).

4. Discussion

Yang and Swanson, which are essentially identical to one another, do not render the invention defined by independent claim 14 obvious because the combined teachings thereof do not produce the claimed invention. For example, referring to Figure 40 of Yang, as reproduced below with the explanatory annotations from the Office Action, the Office Action has taken the position that the portion of the Yang electrode support structure that is distal of the distal-most electrode 28 corresponds to the claimed “hinge portion.” [Note the arrow.] Applicant respectfully submits that one of skill in the art would not consider the portion of the Yang electrode support structure identified by the arrow to be a “hinge portion” because, as is clearly illustrated in Figure 40, the portion of the electrode support structure identified by the arrow is not a pivot point that allows adjacent regions of the electrode support structure to deflect relative to one another. To the contrary, there is a smooth, continuous curve at the purported “hinge portion.”



Swanson fails to remedy this deficiency. Most notably, replacing the Yang electrodes 28 with the Swanson electrode body 428 would not produce a “hinge portion.” Like Figure 40 of Yang, Figure 82 of Swanson shows a smooth, continuous curve is located at the purported “hinge portion.” Accordingly, even assuming for the sake of argument that it would have been obvious to add the Swanson tissue coagulation body to the device illustrated in Figure 40 of Yang, the claimed invention would not have been realized.

In view of the foregoing, applicant respectfully submits that the Office Action failed to establish a *prima facie* case of obviousness of the invention defined by independent claim 14 and that the rejection of claims 14, 15, 17, 38, 39, 45 and 46 under 35 U.S.C. § 103 should be withdrawn.

Applicant also notes here that the Office Action indicated, in the context of Yang, that the purported “hinge portion” is located distal of the distal-most electrode and further indicated, in the context of Swanson, that the “hinge portion” is located somewhere within the plurality of electrodes 429 under the porous material 430. [Note the annotated drawings on the previous page.] ***Should the rejection be maintained, applicant hereby requests that the next action (Office Action or Advisory Action) address this inconsistency and clearly indicate where the purported hinge portion is located in the Yang/Swanson device.***

5. Additional Discussion Concerning Claim 45

In addition to the elements recited in independent claim 14, dependent claim 45 indicates that “the ***hinge portion has a flexibility that is greater*** in a bending direction ***than the flexibility of the portions*** of the elongate body that are ***immediately proximal and distal thereto.***”

The cited references fail to teach or suggest such a “hinge portion.” For example, there is nothing in Yang which indicates that the portion of the electrode support structure at the purported “hinge portion” (note Figure 40 on the preceding page) is more flexible than the regions of the electrode support structure that are immediately proximal and distal thereto. For example, Yang does not indicate that there is any difference in the shape or materials of the spline leg 254 and sleeve 256 immediately proximal to, and distal of, the purported “hinge portion.” Swanson fails to remedy this deficiency.

Accordingly, for reasons in addition to those presented above with respect to independent claim 14, the rejection of claim 45 under 35 U.S.C. § 103 should be withdrawn.

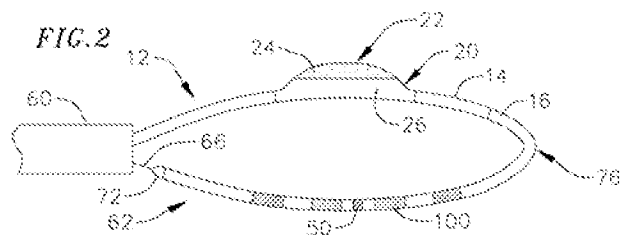
C. Discussion Concerning Claims 21-23, 25 and 27-29

1. The Claimed Combinations

Independent claim 21 calls for a combination of elements including, *inter alia*, “an elongate catheter tube, defining a distal region that supports the tissue coagulation body and a distal end, adapted to be carried within the outer member interior bore and extend outwardly from the interior bore such that the distal region forms a loop, **the elongate catheter tube including a hinge** located proximal of the distal end and **defining the apex of the loop** formed by the distal region, **the apex of the loop having a flexibility that is greater in a bending direction than the flexibility of the portions of the elongate catheter tube that are immediately proximal and distal thereto.**” The combinations defined by claims 22, 23, 25 and 27-29 include, *inter alia*, the elements recited in claim 21.

2. Claim Interpretation

Independent claim 21 indicates that the “**apex of the loop** [has] a flexibility that is greater in a bending direction than the flexibility of the portions of the elongate catheter tube that are immediately proximal and distal thereto.” The plain meaning of the word “apex” is “the tip, point, or vertex.” The plain meaning is confirmed by the manner in which “apex” is used in the present application. For example, and referring to Figure 2, the application states that “[t]he placement of the flattened portion 74 in the area that will form the apex 76 of the loop 62 also results in a much sharper bend at the apex, and a more compact loop, than would be obtained otherwise.” [Spec. at page 16, lines 17-20.] One of skill in the art would interpret an “apex of the loop” to be the distal tip of the loop and, accordingly,



would interpret claim 21 as calling for a catheter tube that forms a loop, that the loop has a distal tip, and that the portion of the catheter tube that defines the distal tip of the loop is more flexible than the portions of the catheter tube immediately distal and proximal thereto.

3. The Cited References

Referring to Figure 40, which is reproduced on the following page, Yang discloses an electrode support structure, defined by a spline leg 254 and a sleeve 256, that is bent into a loop 252 when pushed outwardly from a sheath 258. The electrode support structure supports a plurality of electrodes 28. Swanson discloses an electrode body 428 in Figure 82, including the electrodes 429 and porous material 430 illustrated Figures 83 and 84. The electrode body 428 is also disclosed in Yang (see Figure 82).

4. Discussion

Yang and Swanson, which are essentially identical to one another, do not render the invention defined by independent claim 21 obvious because the combined teachings thereof do not produce the claimed invention. For example, and referring to Figure 40 of Yang, as reproduced here with the annotations from the Office Action, the Office Action has taken the position that the portion of the Yang electrode support structure that is distal of the distal-most electrode 28 (and identified with the arrow) is the “apex of the loop.” Even assuming for the sake of argument that the portion of the

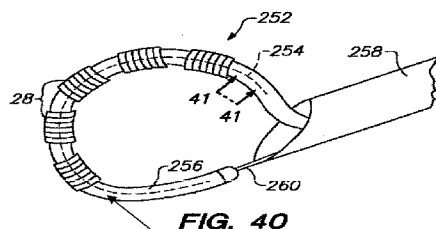


FIG. 40

Hinge portion located proximal of the distal end display greater bending capability than its immediate proximal & distal thereto, which forms an apex portion.

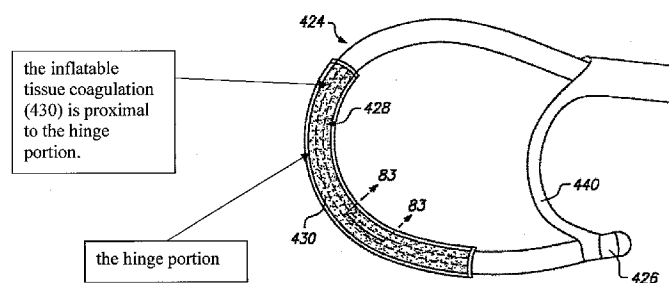


FIG. 82

Yang electrode support structure identified by the arrow could be the “apex of the loop” if the structure was pulled proximally from the position illustrated in Figure 40, and that the Yang a spline leg 254 and a sleeve 256 correspond to the claimed “catheter,” there is nothing in Yang which indicates that the identified portion has “a **flexibility that is greater** in a bending direction **than** the flexibility of **the portions** of the elongate catheter tube that are **immediately proximal and distal thereto**.”

Swanson fails to remedy this deficiency. Clearly, the illustrated flexibility of the device in Figure 82 is the same at the apex as it is immediately proximal **and** distal to the apex, and there is nothing in Swanson specification that indicates otherwise. Accordingly, even assuming for the sake of argument that it would have been obvious to add the Swanson tissue coagulation body to the device illustrated in Figure 40 of Yang, the claimed invention would not have been realized.

As the cited references fail to teach or suggest the combination of elements recited in independent claim 21, applicant respectfully submits that the rejection of claims 21-23, 25 and 27-29 under 35 U.S.C. § 103 should be withdrawn.

5. Additional Discussion Concerning Claim 25

In addition to the elements recited in independent claim 21, dependent claim 25 indicates that “at least the distal region of the elongate catheter tube includes a flexible spline and **the hinge is defined by a portion of the flexible spline which has a flexibility that is greater in the bending direction than the flexibility of the portions of the flexible spline that are immediately proximal and distal thereto**.”

The cited references fail to teach or suggest such a “spline.” For example, there is nothing in Yang which indicates that any portion of the spline leg 254 has a greater flexibility than the portions of the spline leg that are immediately proximal and distal thereto. The structure illustrated in Figure 82 of Swanson does not have a spline leg.

Accordingly, for reasons in addition to those presented above with respect to independent claim 21, the rejection of claim 25 under 35 U.S.C. § 103 should be withdrawn.

V. CLOSING REMARKS

In view of the foregoing, it is respectfully submitted that the claims in the application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are respectfully requested. Allowance of the claims at an early date is courteously solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is respectfully requested to call applicant's undersigned representative at (310) 563-1458 to discuss the steps necessary for placing the application in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0638. Should such fees be associated with an extension of time, applicant respectfully requests that this paper be considered a petition therefor.

Respectfully submitted,

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Date

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